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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/085,137	03/01/2002	Yasushi Tanaka	HYAE:134	2656

EXAMINER
RAO, ANAND SHASHIKANT

ART UNIT	PAPER NUMBER
2621	

MAIL DATE	DELIVERY MODE
10/26/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/085,137	Applicant(s) TANAKA ET AL.	
	Examiner Andy S. Rao	Art Unit 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 August 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 5, 6, 9 and 12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-4, 7, 8, 10 and 11 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Response to Amendment

1. Applicant's arguments with respect to claims 5-6, 9 and 12 as filed on 8/10/07 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 5-6, 9 are rejected under 35 U.S.C. 102(e) as being anticipated by Honma et al., (hereinafter referred to as "Honma").

Honma discloses an encoding circuit that includes a frequency converter for frequency-converting data of a processing target block into frequency components, a quantizer for quantizing the frequency components, and an encoder for variable length coding the quantized frequency components in a predetermined scanning order (Honma: figure 17A); and end of block detector for detecting a position of a rearmost non-zero quantized frequency component in the processing target block in the predetermined scanning order (Honma: column 21, lines 35-60), and outputting the detected position as a control signal to the quantizer and the encoder (Honma: figure 19), wherein said quantizer is for quantizing the frequency components (Honma: column 21, lines 20-25) up to the position indicated by the control signal in the predetermined scanning order (Honma: column 18, lines 40-60), and pausing the quantizing thereafter (Honma: column 24, lines 60-67; column 25, lines 1-20); and said encoder for variable length coding the quantized frequency components up to said position in the predetermined scanning order, as indicated by the control signal, adding an end of block code that indicates an end of effective components, and pauses the variable length coding thereafter (Honma: column 21, lines 60-67; column 22, lines 1-32), as in claim 5.

Regarding claim 6, Honma discloses wherein the end of block detector is between the frequency converter and the quantizer, and said end of block detector comprises: a memory for temporarily retaining the frequency components of the processing target block from the frequency converter, and outputting the retained frequency components in the predetermined scanning order (Honma: column 21, lines 20-25); a counter for detecting a position of the frequency component that is inputted from the memory in the predetermined scanning order (Honma: column 24, lines 1-20); a first comparator for comparing the frequency component,

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using a quantization value as a divisor for dividing the frequency component in the quantizer (Honma: column 23, lines 15-25); and a register for retaining a position of a non-zero quantized frequency component in the predetermined scanning order based on a result of the first comparator (Honma: column 23, lines 7-13), as in the claim.

Honma discloses an encoding method (Honma: figure 16) comprising: frequency-converting data of a processing target block into frequency components (Honma: column 21, lines 20-25); detecting an end of block of the frequency components by comparing the frequency component with a quantization value as a divisor for dividing the frequency components in a quantization process (Honma: column 21, lines 35-45), and detecting a position of a rearmost non-zero quantized frequency component in the processing target block in a predetermined scanning order (Honma: column 21, lines 46-60); quantizing the frequency components up to said position in the predetermined scanning order (Honma: column 18, lines 40-60), and pausing the quantizing thereafter (Honma: column 24, lines 60-67; column 25, lines 60-67); variable length coding the quantized frequency components up to said position in the predetermined scanning order (Honma: column 24, lines 5-19), adding an end of block code that indicates an end of effective components (Honma: column 24, lines 20-30), and pausing the variable length coding thereafter (Honma: column 24, lines 60-67; column 25, lines 1-20), as in claim 9.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Honma in view of Kobayashi.

Honma discloses an encoding method (Honma: figure 3) as embodied on a program (Honma: column 29, lines 53-55) for use by a computer (Honma: column 29, lines 48-50) comprising: frequency-converting data of a processing target block into frequency components (Honma: column 21, lines 20-25); detecting an end of block of the frequency components by comparing the frequency component with a quantization value as a divisor for dividing the frequency components in a quantization process (Honma: column 21, lines 35-45), and detecting a position of a rearmost non-zero quantized frequency component in the processing target block in a predetermined scanning order (Honma: column 21, lines 46-60); quantizing the frequency components up to said position in the predetermined scanning order (Honma: column 18, lines 40-60), and pausing the quantizing thereafter (Honma: column 24, lines 60-67; column 25, lines 60-67); variable length coding the quantized frequency components up to said position in the predetermined scanning order (Honma: column 24, lines 5-19), adding an end of block code that indicates an end of effective components (Honma: column 24, lines 20-30), and pausing the variable length coding thereafter (Honma: column 24, lines 60-67; column 25, lines 1-20), as in claim 12. However, Honma fails to disclose the implementation of the method as a computer program *on a computer readable medium* for making a computer implement the method as in the claim. Kobayashi discloses an image encoding method (Kobayashi: figures 1-6) including end of block detection/processing (Kobayashi: column 12, lines 35-50) as implemented on as a computer program on a computer readable medium (Kobayashi: column 24, lines 35-45) in order

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to have the method implemented across a distributed network (Kobayashi: column 26, lines 50-52). Accordingly, given this teaching, it would have been obvious for one of ordinary skill in the art to incorporate the Kobayashi teaching of having a computer program as embodied as instructions on a computer readable medium with the Honma method in order to have the Honma method implemented across distributed networks. The Honma method, now implemented as a computer program on a computer readable medium as shown by Kobayashi, has all of the features of claim 12.

Conclusion

2. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Juri discloses a video signal recording apparatus overflow allocation apparatus and method. Civanlar discloses an efficient scalable video encoding with coefficient selection. Choi discloses a coefficient generation apparatus for variable length decoder.

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andy S. Rao whose telephone number is (571)-272-7337. The examiner can normally be reached on Monday-Friday 8 hours.

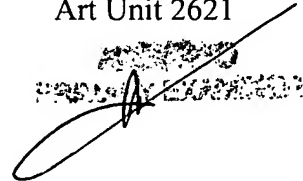
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on (571)-272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Andy S. Rao
Primary Examiner
Art Unit 2621

asr
October 24, 2007

A handwritten signature in black ink, appearing to be 'ASR', is written over a rectangular stamp. The stamp contains the text 'ANDY S. RAO' and 'PRIMARY EXAMINER' in a bold, sans-serif font. The signature is written in a cursive style, with a large loop at the end.